

Chapter 4: Environmental Consequences

This chapter addresses the expected beneficial and adverse social, economic, and environmental impacts of the proposed S.R. 108 project alternatives. Impacts on resources and the measures to mitigate the impacts are presented in this chapter by alternative. If no mitigation measures are listed for a resource in this chapter, then none were required.

4.1 Land Use Impacts

This section describes the expected impacts to existing and future land use for each of the project alternatives. The discussion focuses on general land uses along the corridor (residential and nonresidential) rather than uses associated with specific zoning districts or land use designations. Because each city has its own designations for parcels in the land use impact analysis area, it is more meaningful to look at overall patterns of land use.

The cities' general plans address both the current land uses in the land use impact analysis area and the expected future land uses. To determine the impacts to land use, the cities' land use maps were converted into a single electronic map using geographic information systems (GIS) software. This map is shown in Exhibit 3.1-2, Land Use. The action alternatives were then overlaid onto the land use map to calculate the specific acreage of impacts.

4.1.1 No-Action Alternative

Under the No-Action Alternative, no improvements to S.R. 108 would be made except for routine maintenance.

4.1.1.1 Impacts on Existing Land Use

Representatives of the jurisdictions in the land use impact analysis area believe that the current types of land use and rates of development will continue with or without improvements to S.R. 108 (Anderson and Davis 2006; S. Anderson 2006a; Larson 2006a; Vinzant 2006; Worthen 2006). The cities along S.R. 108 expect full build-out within their current boundaries between 2020 and 2035.

What is the land use impact analysis area?

The land use impact analysis area is the area within one-half mile of S.R. 108.

What is build-out?

Build-out means that there is no more land available for development because any undeveloped land is already being used for its intended use of open space, agriculture, or other defined uses.

However, build-out rarely means the end of development in a city, because parcels of land can be redeveloped and a city can add to its existing land base by annexing adjacent parcels.



The basis for assuming that the area will develop to full build-out with or without the S.R. 108 project is the following past and expected future trends:

- **Past Trends.** Over the past 3 years, the land adjacent to S.R. 108 has gone through rapid development with two new Wal-Mart stores and a major shopping center being constructed along with a new high school. In addition, representatives from the cities noted that some of the remaining undeveloped land is being sold to developers and platted.
- **Future Trends.** As shown in Exhibit 1.4-1: 2002 and 2035 Population, Households, and Employment, population growth rates in the next 30 years for the five cities would be between 18% and 376%, and employment growth would be between 43% and 264%. Given the small amount of available land, it is expected that the area would develop even without roadway improvements such as the proposed improvements to S.R. 108.

Given these trends, the No-Action Alternative would not affect the existing and anticipated land uses in the cities along S.R. 108.

4.1.1.2 Consistency with Plans and Policies

The general plans of Syracuse, Clinton, and West Haven identify the widening of S.R. 108 as an important future development. If S.R. 108 is not widened, the roadway would not be consistent with these general plans. West Point and Roy do not specify a width for S.R. 108 in their general plans. However, discussions with their planning staff indicate that both cities anticipate a wider road.

4.1.2 Minimize 4(f) Impacts Alternative

4.1.2.1 Impacts on Existing Land Use

As noted in Section 4.1.1, No-Action Alternative, the current types of land use and rates of development in the land use impact analysis area are expected to continue with or without improvements to S.R. 108. As shown in Exhibit 4.1-1 below, the Minimize 4(f) Impacts Alternative would require a maximum of about 34 acres of new right-of-way at various points along the alignment. The additional right-of-way would extend the existing right-of-way so that it accommodates a 110-foot-wide roadway while minimizing

What is a general plan?

State law requires each city to prepare and adopt a comprehensive, long-range general plan. These plans are intended to identify the present and future land use needs of each city and to outline desired growth and development patterns.

General plans are typically accompanied by a land use or zoning ordinance, which details development standards—such as allowable building heights and required setbacks—and includes maps that show the desired development patterns.

impacts to 4(f) properties. Converting these areas to transportation use would not affect the current patterns of residential, commercial, and public/government land use in the land use impact analysis area. However, acquiring the right-of-way needed for this alternative would affect individual landowners and businesses through partial takes or total relocation. See Section 4.3.2.6, Relocations, for a detailed discussion of relocation impacts.

Exhibit 4.1-1: Right-of-Way Impacts from the Action Alternatives

Alternative	Total Number of Properties Affected	Total Acres Affected ^a	Relocations ^b		Strip Takes		Potential Relocations ^b	
			Number	Acres	Number	Acres	Number	Acres
Minimize 4(f) Impacts	354	34	61	7.9	246	22.2	47	3.5
West	330	38	108	12.0	167	20.6	57	5.8

^a Amount of land required for new right-of-way only. Acres of impacts are estimates only based on preliminary design.

^b Includes residential and commercial relocations.

Most undeveloped parcels of land along S.R. 108 are planned for commercial or residential development. Development of these properties is expected to occur with or without improvements to S.R. 108, as discussed in Section 4.1.1.1, Impacts on Existing Land Use. Given these trends, the Minimize 4(f) Impacts Alternative itself would not cause further development along the corridor or in the region. In addition, based on discussions with city representatives, the Minimize 4(f) Impacts Alternative is not expected to cause regional growth and development beyond that already planned by the cities and counties in the land use impact analysis area. However, it is possible that an improved S.R. 108 could advance the timing of some developments along S.R. 108.

4.1.2.2 Consistency with Plans and Policies

The improvements proposed as part of the Minimize 4(f) Impacts Alternative are consistent with the future land use and transportation planning goals of all of the cities along S.R. 108. Exhibit 4.1-2 below summarizes the permanent land use impacts in the land use impacts analysis area by type of use.

**Exhibit 4.1-2: Permanent Land Use Impacts from the Minimize 4(f) Impacts Alternative**

Land Use Type	Percent of Land Use Type Affected ^a
Residential	0.9%
Commercial/industrial	2.5%
Mixed use	2.8%
Public/government land ^b	1.3%

^a Because the jurisdictions do not all use the same type of mapping methodology, these percentages are an estimate only. For example, some jurisdictions apply land use designations to large expanses of land, including roads, while others apply designations to parcels only and do not include roads.

^b Includes government land/facilities, quasi-government land/facilities, publicly owned spaces, open space, and private churches. These data do not summarize impacts to Section 4(f) properties.

As shown in Exhibit 4.1-2 above, the Minimize 4(f) Impacts Alternative would not directly affect a substantial amount of any particular land use classification in the impact analysis area. Most impacts would be in the form of strip takes along property frontages and would not affect the overall function of business, industrial, or government-owned/public properties. When considered in conjunction with information provided by the cities' planning and development professionals, this information indicates that the Minimize 4(f) Impacts Alternative would not affect future regional development patterns. However, it is possible that an improved S.R. 108 could advance the timing of some developments along S.R. 108.

An improved roadway is likely to better accommodate and serve anticipated development. The cities of Syracuse, Clinton, and West Haven make this connection in their general plans by specifying a desired future road width for S.R. 108. The Syracuse general plan identifies S.R. 108 as a 110-foot-wide major arterial, while Clinton's general plan calls for a five-lane roadway and the West Haven plan shows a 100-foot to 110-foot roadway. The 110-foot, five-lane roadway proposed as part of this alternative is consistent with those plans. The general plans of West Point and Roy do not specifically discuss the width or configuration of S.R. 108.

The Minimize 4(f) Impacts Alternative is consistent with the plans and policies of cities along S.R. 108.

4.1.3 West Alternative

4.1.3.1 Impacts on Existing Land Use

Exhibit 4.1-1: Right-of-Way Impacts from the Action Alternatives above summarizes the right-of-way needed for construction of the West Alternative. This alternative would require a maximum of about 38 acres of new right-of-way to extend the existing corridor to the west so that it accommodates the proposed 110-foot-wide roadway. As shown in Exhibit 4.1-1, the West Alternative would require more relocations and would affect a greater total area than the Minimize 4(f) Impacts Alternative would, though the total number of properties affected under the West Alternative would be slightly lower. As with the Minimize 4(f) Impacts Alternative, converting these areas to transportation use would not affect the current patterns of residential, commercial, and public/government land use in the impact analysis area.

Most undeveloped parcels of land along S.R. 108 are identified by the different cities for commercial or residential development. Development of these properties is expected to occur with or without improvements to S.R. 108. As with the Minimize 4(f) Impacts Alternative, the West Alternative is not expected to alter the anticipated development in the region.

4.1.3.2 Consistency with Plans and Policies

The improvements proposed as part of the West Alternative are consistent with the future land use and transportation planning goals of all of the cities along S.R. 108. Exhibit 4.1-3 below summarizes the permanent land use impacts in the land use impacts analysis area by type of use. As with the Minimize 4(f) Impacts Alternative, the land use impacts from the West Alternative would be minor. The West Alternative would affect slightly less residential and government land than the Minimize 4(f) Impacts Alternative would, but would affect more commercial/industrial and mixed-use land.

What is mixed use?

The term *mixed use* is used to describe development that supports more than one type of use in a building or set of buildings. As areas become more urbanized, planners often consider building a mix of residential, commercial, institutional, and other uses in a single area to increase convenience and access.

For example, a developer might include a shopping center and park within the boundaries of a small housing development or might include housing units on the second floor above operating businesses.

**Exhibit 4.1-3: Permanent Land Use Impacts from the West Alternative**

Land Use Type	Percent of Land Use Type Affected ^a
Residential	0.8%
Commercial/industrial	2.7%
Mixed use	2.9%
Public/government land ^b	0.8%

^a Because the jurisdictions do not all use the same type of mapping methodology, these percentages are an estimate only. For example, some jurisdictions apply land use designations to large expanses of land, including roads, while others apply designations to parcels only and do not include roads.

^b Includes government land/facilities, quasi-government land/facilities, publicly owned spaces, open space, and private churches. These data do not summarize impacts to Section 4(f) properties.

Under the West Alternative, most impacts to commercial and industrial land would be in the form of strip takes along property frontages and would not affect the overall function of business or industrial properties. When considered in conjunction with information provided by the cities' planning and development professionals, this information indicates that the West Alternative would not affect future development patterns.

Widening of the roadway on the west side only is consistent with the cities' plans and is not expected to affect future development patterns. As with the Minimize 4(f) Impacts Alternative, an improved roadway will better accommodate and serve planned development.

4.2 Farmland Impacts

This section addresses the impacts from the S.R. 108 alternatives on farmland trends, crops, and APAs. Farmland impacts were evaluated using information from several sources including field surveys along the project alternatives, information obtained from Utah Division of Water Resources water inventory mapping, reviews of project aerial maps, and parcel information (zoning classifications and acreage) obtained from the assessor's offices of Davis and Weber Counties.

As discussed in Section 3.2.2.1, Farmland Protection Policy Act, no analysis of prime, unique, or statewide or locally important farmland is required for the S.R. 108 project under the Farmland Protection Policy Act. However, an analysis of general cropland was completed.

The S.R. 108 action alternatives would directly affect cropland as well as farmland that is under APA status. Some farmland is within the proposed right-of-way and would be directly taken out of production (direct impacts). No farmland outside the right-of-way would be affected (indirect impacts). Indirect impacts from a project typically occur when farmland outside the right-of-way is no longer farmable due to small parcel size or lack of access. Indirect impacts can also occur if the farmland is developed at a faster rate as a result of the improved road. However, all farmland in the impact analysis area is expected to be developed by the end of the study period, even under the No-Action Alternative, due to the rapid development occurring in the area.

Acquiring farmland for roadway use is not considered a farm displacement unless the amount of farmland remaining is not enough to farm. UDOT and the landowner would determine the viability of each farming operation on a case-by-case basis.

4.2.1 No-Action Alternative

Under the No-Action Alternative, S.R. 108 would not be widened, so no direct impacts to farmland would occur as a result of the project. In addition, the No-Action Alternative would not cause any indirect impacts to farmland, although continued urban development in the impact analysis area would continue to convert existing farmland into residential and commercial uses. As discussed in Section 3.1, Land Use, city officials from the cities along S.R. 108 expect all of

What is the farmland impact analysis area?

The farmland impact analysis area is the area within one-half mile of S.R. 108.

What is the Farmland Protection Policy Act?

The Farmland Protection Policy Act was enacted to "minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses." All of the farmland in the S.R. 108 farmland impact analysis area is exempt from the Farmland Protection Policy Act.



the remaining farmland along S.R. 108 to be developed in the next 25 years.

4.2.2 Minimize 4(f) Impacts Alternative

The Minimize 4(f) Impacts Alternative would directly affect about 26.1 acres of irrigated cropland and a negligible amount (about 0.13 acre) of non-irrigated cropland. The impacts to cropland or farmland are shown in Exhibit 4.2-1.

Exhibit 4.2-1: Impacts to Cropland and Farmland

Shown in acres

Crop	Minimize 4(f) Impacts Alternative	West Alternative
<i>Irrigated Crops or Farmland</i>		
Pasture	15.4	16.0
Alfalfa	4.9	5.2
Grain	0.9	1.1
Corn	2.0	2.1
Onions	2.9	3.3
Grass hay	0	0.2
Other vegetables	0	0
Pasture, sub-irrigated	0	0
Grass/turf	0	0
Total irrigated	26.1	27.9
<i>Non-irrigated Crops or Farmland</i>		
Dry idle	0	0
Idle	0	0
Fallow	0.6	0.7
Dry pasture	0.7	0.7
Total non-irrigated	0.13	0.14

Locally important farmland in the impact analysis area includes one farm that has been operated continuously by the same family for over 100 years and is recognized as a Century Farm by the Century Farm and Ranch program administered by the Utah Department of Agriculture. The Minimize 4(f) Impacts Alternative would not affect the Century Farm.

As shown in Exhibit 4.2-2 and Exhibit 4.2-3 below, four individual APA parcels would be affected by the Minimize 4(f) Impacts Alternative. The combined affected acreage in the four APA parcels is about 3 acres. Three of the four parcels are owned by the Church of Jesus Christ of Latter-day Saints (LDS Church), and the fourth parcel was owned by the LDS Church but was recently sold to a developer.

What are Agriculture Protection Areas?

Agriculture Protection Areas (APAs) are geographic areas where agricultural activities are given special protections. APAs cannot be condemned for highway purposes unless certain conditions are met.

Exhibit 4.2-2: Impacts to Agriculture Protection Areas

Shown in acres

Agriculture Protection Area by Parcel ID	Minimize 4(f) Impacts Alternative	West Alternative	Location ^a
12-033-0054	1.5	1.5	269 North 2000 West, West Point
12-033-0037	0.06	0.07	Between 200 South and 300 North on the west side of S.R. 108, West Point
14-062-0007	0.1	0	Between 800 North and 1300 North on the east side of S.R. 108, Clinton
14-062-0018	1.3	0	Between 800 North and 1300 North on the east side of S.R. 108, Clinton
Total	2.96	1.6	

Sources: Utah Division of Water Resources 2003; Davis County 2006a; Weber County 2006

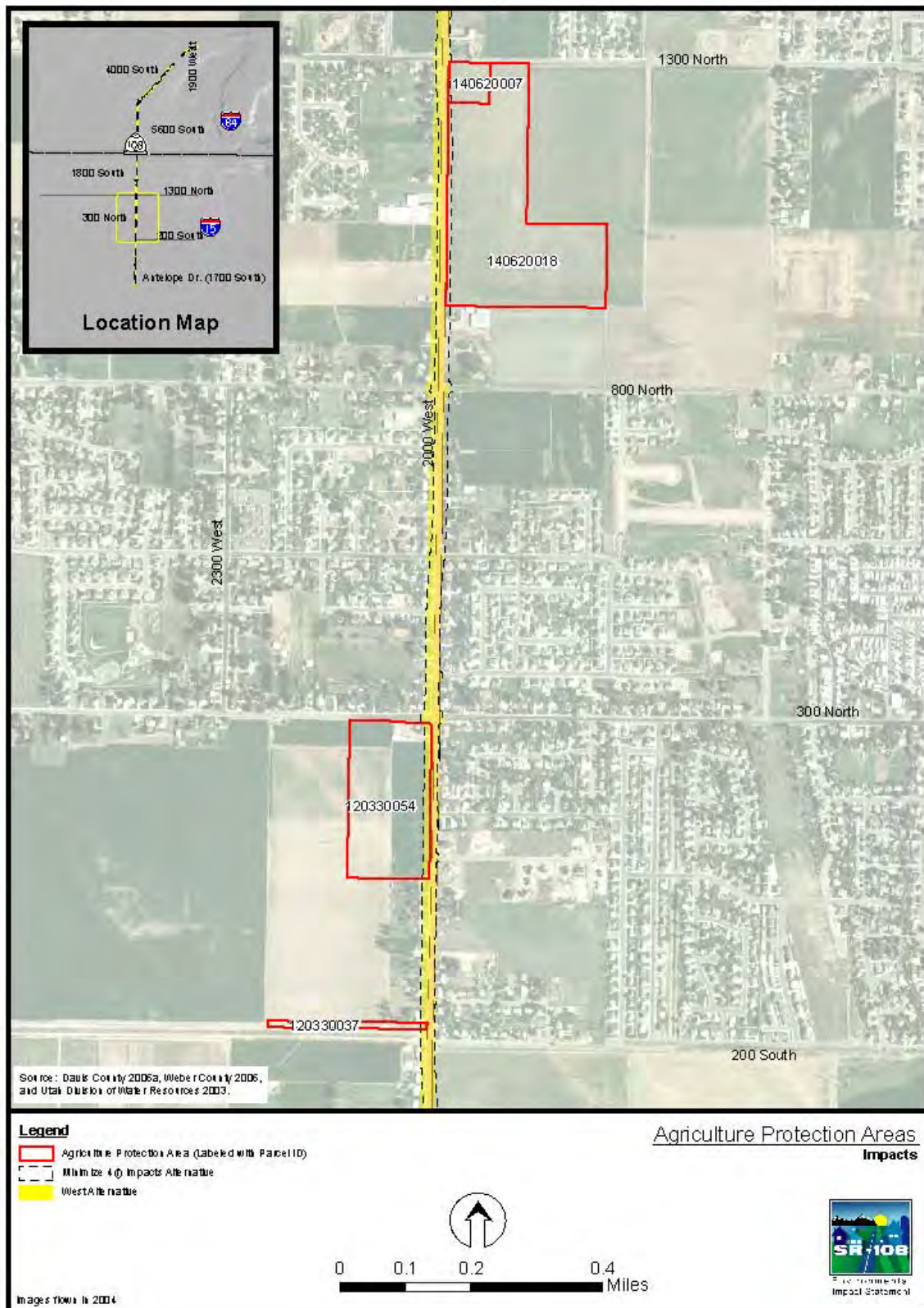
^a Exact property addresses were not available for most parcels.

Although APAs are not completely protected from development, they are given special protections. The APA status of these parcels would need to be removed in order for the Minimize 4(f) Impacts Alternative to be built.

In response to previous UDOT projects that would affect APA parcels owned by the LDS Church, the church has stated that it expects the APA parcels to be developed eventually to accommodate growth in the area (see Appendix C, Pertinent Correspondence). Therefore, it is possible that the LDS Church might consider removing the APA status of the three church-owned parcels.



Exhibit 4.2-3: Agriculture Protection Areas – Impacts



Since a development company recently bought one APA parcel, it likely plans to develop it in the near future, and therefore the APA status will probably be removed. Additionally, because the amount of acreage required from these four APA parcels is relatively small, the owners might be willing to remove the APA status for the portion of land that is required to accommodate the roadway right-of-way. Removing the APA status would not be necessary until the right-of-way acquisition phase of the project, which occurs shortly before construction.

Lastly, if the owners of these parcels do not remove the APA status, the project could still be built using a provision in Utah state law that allows UDOT to condemn land for a highway purpose. According to Utah Code Section 17-41-405, Eminent Domain Restrictions:

If the condemnation is for highway purposes or for the disposal of solid or liquid waste materials, the applicable legislative body and the advisory board may approve the condemnation only if there is no reasonable and prudent alternative to the use of the land within the Agriculture Protection Area for the project.

In other words, an APA parcel cannot be used for a highway purpose if there is a reasonable and prudent alternative to using the APA. However, all reasonable and prudent alternatives that are being considered for this project would affect these APAs or other APAs along S.R. 108.

Can land that is part of an APA be used for roadway purposes?

Although APAs are not completely protected from development, they are given special protections. The APA status of four parcels along S.R. 108 would need to be removed in order for the S.R. 108 project to be built.

In addition, if the owners of these parcels do not remove the APA status, the project could still be built using a provision in Utah state law that allows UDOT to condemn land for a highway purpose if there is no reasonable and prudent alternative to the use of the land within the APA for the project.

4.2.3 West Alternative

The West Alternative would affect about 27.9 acres of irrigated cropland and a negligible amount (about 0.14 acre) of non-irrigated cropland. The impacts to cropland or farmland are shown above in Exhibit 4.2-1: Impacts to Cropland and Farmland.

The West Alternative would not affect the Century Farm.

As shown above in Exhibit 4.2-2: Impacts to Agriculture Protection Areas, two individual APA parcels would be affected by the West Alternative. The combined affected acreage in the two APA parcels would be about 1.6 acres. One of the parcels is owned by the LDS Church, and the other parcel was owned by the LDS Church but was recently sold to a developer. Impacts to APA parcels are described in Section 4.2.2, Minimize 4(f) Impacts Alternative.



4.2.4 Mitigation Measures for Impacts to Farmland

UDOT will work with each farm owner on a case-by-case basis to determine the farm's eligibility for benefits under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and other state and federal guidelines. Generally, UDOT will provide compensation for the expense of re-establishing farm enterprises and for fair market value of the buildings and land.

4.3 Community Impact Assessment

This section describes the expected impacts to the S.R. 108 social environment and the communities along S.R. 108. The social environment is analyzed in terms of the following elements:

- Neighborhood and community cohesion
- Quality of life
- Recreation resources
- Community facilities
- Public health and safety
- Relocations
- Public services and utilities

Impacts to neighborhood and community cohesion and quality of life were determined using a qualitative approach. Specifically, the analysis considers how the project would affect the physical and social conditions that define the neighborhoods and communities along S.R. 108.

Impacts related to recreation resources, community facilities, and utilities were determined using a quantitative approach. The alternatives were evaluated to determine how they would directly affect properties that support recreation areas, community facilities, or utilities.

Impacts to public health and safety were determined by examining how the proposed roadway modifications would affect emergency response and the safety of pedestrians in the area. For the most part, health and safety impacts were analyzed qualitatively because limited amounts of data were available on emergency response and pedestrian safety.

What is the social environment impact analysis area?

The social impact analysis area includes parts of the cities of Syracuse, West Point, and Clinton in Davis County and Roy and West Haven in Weber County. The social impact analysis area focuses mainly on neighborhoods within one-half mile of the roadway centerline along the 9.5-mile S.R. 108 project corridor.

What are quantitative and qualitative analyses?

A *quantitative* analysis is one that produces specific numeric results, such as a reduction in vehicle-miles traveled or the exact number of properties that would require relocations.

A *qualitative* analysis looks at impacts in more general and comparative terms. For this EIS, qualitative analyses were performed when numeric data were not available.

Finally, relocation impacts were determined using a quantitative approach in much the same way as land use impacts. The alternatives were compared to existing property boundaries to determine the properties that would be subject to relocations, potential relocations, or strip takes. (For definitions of these terms, see Section 4.3.2.6, Relocations.)

4.3.1 No-Action Alternative

Under the No-Action Alternative, the social environment would continue to be affected by ongoing change and growth in the region. The area would probably remain cohesive without the proposed improvements to S.R. 108 because of the strong attachments within and between the existing communities. The availability of recreation resources, community facilities, housing, and public services would not change. Increases in services, such as the construction of new recreation or medical facilities, would be consistent with the cities' adopted plans and the anticipated growth in the region.

The No-Action Alternative would not require acquisition of right-of-way, so no residences or businesses would be subject to relocation. However, development would likely continue along the corridor with or without the S.R. 108 project, and residential properties would likely continue to be converted to commercial uses. Additionally, existing traffic, congestion, and associated roadway accessibility and mobility problems would continue to be a concern for residents in the area. These issues could adversely affect how residents feel about their safety and quality of life.

4.3.2 Minimize 4(f) Impacts Alternative

4.3.2.1 Neighborhood and Community Cohesion

Overall, the Minimize 4(f) Impacts Alternative would have no substantial direct or indirect effects on neighborhood and community cohesion.

As described in Section 3.3.2.2, Community Facilities and Groups, S.R. 108 is a barrier to interaction within and between communities along S.R. 108. Traffic and congestion affect how people move in and through their communities and therefore how they interact. In spite of this, residents still feel a strong attachment to their



neighborhoods and communities and find the social environment to be cohesive.

The Minimize 4(f) Impacts Alternative would address many of the current problems associated with traffic and congestion. Having four through-traffic lanes for the entire length of the project would ease congestion and improve overall mobility in the region. Access control through the use of raised medians and dedicated turn lanes would also contribute to better mobility. Improved pedestrian access should reduce perceived effects on cohesion that residents might associate with an expanded roadway. These roadway improvements could lead to increased neighborhood and community interaction and, therefore, improved cohesiveness.

Overall, it is unlikely that the proposed roadway improvements would affect other aspects of neighborhood and community cohesion such as the length of residency, the presence of families, or community leadership and activism in the cities along S.R. 108. The Minimize 4(f) Impacts Alternative could positively contribute to quality of life if families find the communities easier to navigate and want to stay in the area for many years. See Section 4.3.2.2, Quality of Life, for more discussion about quality of life in the impact analysis area.

About 55 residences would be subject to relocation along S.R. 108, while about 38 additional residences would potentially require relocation. This could affect local, or neighborhood, cohesion by altering both formal relationships, such as neighborhood associations, and informal relationships, such as friendships. However, because there is plenty of housing available in the communities for the relocated residents, the anticipated relocations are not expected to have long-term effects on local cohesiveness.

4.3.2.2 Quality of Life

The Minimize 4(f) Impacts Alternative would have no substantial direct or indirect effects on quality of life.

Quality of life in the impact analysis area is defined by how residents feel about safety, the accessibility of community resources such as shopping centers, the availability of community services such as city services, and the general living environment. As noted in Section 3.3, Social Environment, residents feel that their neighborhoods and communities are cohesive and generally safe. However, residents have concerns about roadway safety, how traffic and congestion affect their ability to move around and through the communities, and the effects of residential and commercial growth. These factors all affect quality of life.

According to the results of the Community Profile Survey (HDR 2006b), 60% of respondents do not feel safe while driving on S.R. 108. As described in Section 1.4.4, Safety on and Roadway Condition of S.R. 108, safety problems on S.R. 108 are a result of narrow shoulders, narrow setbacks, access conflicts, and skewed intersections. The Minimize 4(f) Impacts Alternative would address many of the residents' traffic safety concerns by providing dedicated turn lanes and by preventing vehicles from making left turns across traffic onto S.R. 108 in certain locations. Having four through-traffic lanes along the entire corridor would ease congestion, which could contribute to improved traffic safety. Pedestrian and bicycle safety would also be enhanced by dedicated bicycle lanes and sidewalks. See Section 4.8, Impacts to Pedestrian and Bicycle Resources, for more discussion of pedestrian and bicycle facilities.

The Minimize 4(f) Impacts Alternative would not affect residential and commercial growth. According to city planners, the cities are expected to continue growing with or without the proposed improvements to S.R. 108 (Anderson and Davis 2006; Vinzant 2006; Worthen 2006). Roadway improvements could affect the rate at which new development occurs during the study period, but the improvements would not affect the types and amounts of growth that are already anticipated.



4.3.2.3 Recreation Resources

The Minimize 4(f) Impacts Alternative would have no direct or indirect effects on any recreation resources.

As shown in Exhibit 3.3-1, Parks in the Social Impact Analysis Area, there are eight recreation resources in the impact analysis area. Two of these resources, Centennial Park and Founders Park, are accessed from S.R. 108 by secondary roads (the parks are not immediately adjacent to S.R. 108). The Minimize 4(f) Impacts Alternative is designed to avoid impacts to these resources. Construction would not require any right-of-way from either of the two parks.

The remaining six recreation resources within one-half mile of S.R. 108 do not front S.R. 108 or require access from the roadway. The Minimize 4(f) Impacts Alternative could have positive indirect effects by improving general access to these resources.

4.3.2.4 Community Facilities

The Minimize 4(f) Impacts Alternative would have no substantial direct or indirect effects on any community facilities.

As shown in Exhibit 3.3-3, Public Facilities in the Social Impact Analysis Area, and Exhibit 3.3-5, Law Enforcement and Fire Protection Facilities in the Social Impact Analysis Area, there are 16 community facilities in the impact analysis area. Of these, nine facilities are directly accessed from S.R. 108. These include the Syracuse City Hall, Syracuse Police Department, Syracuse Fire Station, Syracuse Junior High School, Syracuse Elementary School, Syracuse High School, a private preschool in Syracuse, a church in Syracuse, and a church in West Haven.

The Minimize 4(f) Impacts Alternative is designed to avoid impacts to facilities such as school grounds or parks that could be used for recreation. However, this alternative would have direct impacts to the following schools and community facilities:

- Syracuse Junior High School: strip take (frontage)
- Syracuse High School: strip take (frontage)
- Church at 1560 South 2000 West, Syracuse: strip take (frontage)
- Church at 4607 Midland Drive, West Haven: strip take (frontage)

All of the impacts would involve strip takes of property needed for roadway right-of-way. None of the facilities would need to be relocated, and the strip takes would not affect the day-to-day operation of the facilities or the portions of the facilities used for recreation. The impacts would not cause any long-term, permanent adverse effects to any of the facilities. (For more information about strip takes and relocations, see Section 4.3.2.6, Relocations.)

4.3.2.5 Public Health and Safety

The following discussion analyzes the expected effects of the Minimize 4(f) Impacts Alternative on emergency response and the safety of children who attend schools along S.R. 108. See Section 4.3.2.2, Quality of Life, for more information about residents' attitudes toward community safety and traffic safety.

Emergency Response

The Minimize 4(f) Impacts Alternative would have no substantial direct or indirect effects on emergency response in the impact analysis area.

As described in Section 3.3.6.1, Emergency Response and Law Enforcement, narrow lanes and traffic congestion affect emergency response along S.R. 108. Emergency service providers for the cities along S.R. 108 have stated that there is a need to widen the road and add passing and turning lanes to better facilitate emergency response (Chillson 2006; Peterson 2006; Ritchie 2006; Wallace 2006; Whinham 2006).

The addition of through-traffic lanes and dedicated turn lanes would address the emergency service providers' access and response concerns. Increased shoulder widths could also accommodate emergency response vehicles. If raised medians are incorporated into the final design, the sponsoring agencies will ensure that the locations of the medians do not interfere with emergency service providers' ability to respond to emergencies.

The Minimize 4(f) Impacts Alternative would have no substantial effects on emergency response times or on the ability of emergency service providers to respond to emergencies. In some cases, if an agency is better able to respond to emergencies in its own service area, agencies from other jurisdictions would not need to respond,



and this would keep the other agencies available to respond to emergencies in their own service areas.

School Safety

Two existing public schools are accessed by S.R. 108. The new Syracuse High School is currently under construction and will be operating by the time S.R. 108 would be widened under the proposed project. Another school, Midland Elementary School in Roy, is in the impact analysis area and serves students who live on the east side of S.R. 108 between about 4275 South and 5200 South. All of the students who attend Midland Elementary School live east of S.R. 108 and do not have to cross the road to walk to school (see Section 4.4.2.3, Midland Elementary School Service Area).

For the school locations in Syracuse (elementary, junior high, and high school), raised center medians would be provided at student crossing locations. The use of raised medians has been shown to reduce pedestrian-vehicle accidents by providing a relatively safe place for pedestrians to stop while crossing the road (FHWA 2001). Crossing guards would continue to guide students at the Syracuse Elementary School crosswalk (at about 1500 South) and at Antelope Drive (1700 South), and the speed limits for school safety zones would be maintained. A raised center median would also be installed at 550 North in West Point where students cross S.R. 108.

The Minimize 4(f) Impacts Alternative would require minor amounts of right-of-way from Syracuse Junior High School and the new Syracuse High School. However, the completed project would not affect any existing safety features associated with the school grounds such as sidewalks or access points.

This alternative would add sidewalks and bicycle lanes to S.R. 108, so the safety of children who walk to school on S.R. 108 would be improved in those areas that currently have narrow sidewalks or no sidewalks. The final design could incorporate raised medians, which could serve as a place of refuge for pedestrians who cross a street mid-block or at an intersection.

The anticipated growth in the region will increase the amount of traffic on S.R. 108, which could lead to more vehicle-pedestrian accidents. However, these increases will occur with or without the proposed roadway improvements.

During construction, equipment and excavations could pose a safety hazard for students who walk to school on S.R. 108. Before construction begins, the contractor will coordinate with the schools so that appropriate safety measures can be implemented. These measures could include avoiding construction during the morning and afternoon while students are walking to school and providing a safety monitor to watch students as they walk to school near the construction areas.

4.3.2.6 Relocations

Methodology for Determining Property Impacts

For this analysis, four types of impacts to residences and businesses were considered: direct impacts (relocations), proximity impacts (potential relocations), land-only impacts (strip takes), and construction easements. Only relocations and potential relocations are included in the exhibits for this section.

Direct Impacts (Relocations). For the purpose of this analysis, a direct impact to a residence or business occurs when an existing structure is within the right-of-way of the proposed improvements (see Exhibit 4.3-1 below). These structures include not only the primary home or business structure but also garages, sheds, and other buildings that are not attached to the main building. This type of impact is referred to as a *relocation* because the entire property would need to be acquired and the residents or business would need to relocate. Note, however, that the original structure itself would not be relocated.

Proximity Impacts (Potential Relocations). For the purpose of this analysis, a proximity impact to a residence or business occurs when an existing structure (excluding porches and garages) is within 15 feet of the proposed right-of-way (see Exhibit 4.3-1 below). This type of impact is referred to as a *potential relocation* because it is not clear whether the entire property would need to be acquired. UDOT would make a final determination about the property during the right-of-way acquisition phase of the project, which occurs shortly before construction. By the end of the right-of-way acquisition phase, UDOT will determine whether each potential relocation is a full relocation or a strip take.

What is the relocations impact analysis area?

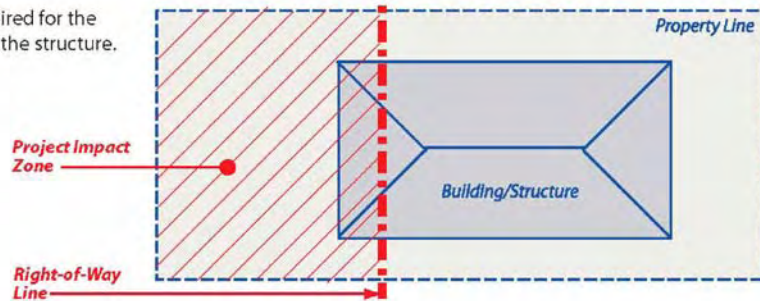
The relocations impact analysis area includes land adjacent to S.R. 108 that could be affected by the proposed right-of-way for the action alternatives.



Exhibit 4.3-1: Property Impact Descriptions

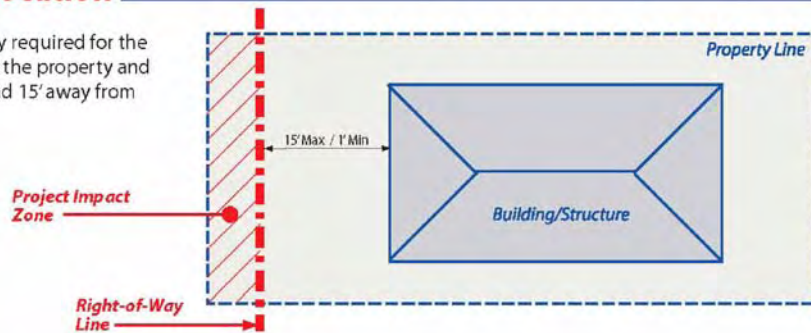
Relocation

- The right-of-way required for the project goes through the structure.



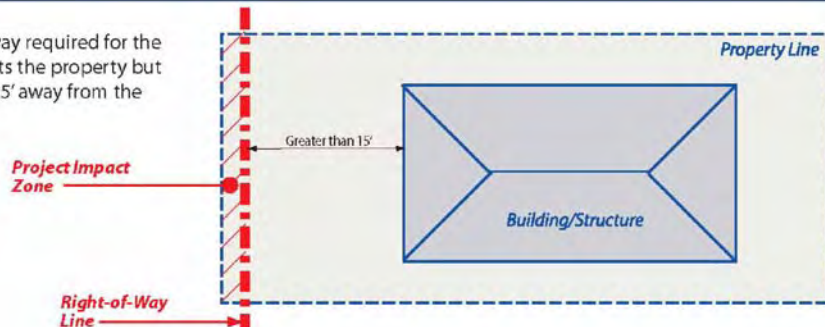
Potential Relocation

- The right-of-way required for the project impacts the property and is between 1' and 15' away from the structure.



Strip Take

- The right-of-way required for the project impacts the property but is more than 15' away from the structure.



Property Impact Descriptions



Land-Only Impacts (Strip Takes). For the purpose of this analysis, a land-only impact occurs when a property is located within the proposed right-of-way but the right-of-way is more than 15 feet from an existing structure (see Exhibit 4.3-1 above). This type of impact is referred to as a *strip take* because only a strip of land would need to be acquired. Strip takes are not considered relocations and are not included in the exhibits for this section.

Construction Easements. Some properties outside the right-of-way might be affected by cuts or fills required during roadway construction. UDOT would temporarily acquire these properties with construction easements. Although these properties might be temporarily affected, construction easements are not considered relocations and are not included in the exhibits for this section. UDOT would compensate the property owners for the temporary use of the property, and the restored property would be returned to the owner when the use of the property is no longer needed.

Relocation Assistance for Displaced Residents and Businesses

Both action alternatives would require acquiring some property. As stated in Section 3.3.7, Housing and Relocations, UDOT would acquire the necessary right-of-way consistent with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. 4601 et seq. as amended, 1989), and Title VI of the Civil Rights Act of 1964. These policies ensure the uniform and equitable treatment of all people displaced from their residences, businesses, and farms without discrimination on any basis.

Relocation resources are available to all residents and businesses that are relocated, and the process for acquiring replacement housing and other sites will be fair and open.

Residences

This section discusses the expected residential relocations and potential relocations. Strip takes are not discussed in this section.

Single-family housing is the predominant type of residence in the S.R. 108 study area. Most housing is clustered between commercial



areas along S.R. 108. Unless otherwise noted, the identified structures in the area that would be affected are occupied.

The Uniform Relocation Assistance Act requires UDOT to provide financial and practical relocation assistance for displaced residents. In addition, if housing of comparable size and value to that being displaced is not available, or is not available within UDOT's payment limits, then UDOT would invoke a process called "housing of last resort" (UDOT 1997). This process allows UDOT to provide necessary housing through any of several methods, including:

- Purchasing a comparable residential property and making it available to the relocated person in exchange for the acquired property
- Relocating and rehabilitating (if necessary) a dwelling purchased by UDOT and making it available to the relocated person in exchange for the acquired property
- Purchasing, rehabilitating, or constructing additions to an existing dwelling to make it comparable to a particular acquired property
- Purchasing land and constructing a new replacement dwelling comparable to a particular acquired property when comparable dwellings are not otherwise available
- Other measures that fairly compensate for the acquired property

Exhibit 4.3-2 below lists the residential properties that would be subject to relocation under the Minimize 4(f) Impacts Alternative.

Overall, the S.R. 108 region has a wide variety of available housing that is in good condition. The median home price in the cities along S.R. 108 ranges from about \$131,000 to about \$207,000 and varies by jurisdiction. As discussed in Section 3.3.7.1, Housing Market Conditions, there are ample available housing units within each county and along S.R. 108. These data indicate that displaced homeowners should be able to find affordable replacement housing in or near the communities in which they now live.

Exhibit 4.3-2: Residential Relocations

Address ^a	Parcel ID Number	City	Minimize 4(f) Impacts Alternative	West Alternative
NA	12-048-0061	Syracuse	Yes	Yes
1280 South 2000 West	12-048-0059	Syracuse	Yes	Yes
1256 South 2000 West	12-048-0060	Syracuse	Yes	Yes
1250 South 2000 West	12-048-0056	Syracuse	Yes	Yes
1232 South 2000 West	12-048-0057	Syracuse	Yes	Yes
1196 South 2000 West	12-048-0046	Syracuse	Yes	Yes
1184 South 2000 West	12-048-0047	Syracuse	Yes	Yes
1175 South 2003 West	12-172-0060	Syracuse	Yes	Yes
1164 South 2000 West	12-205-0007	Syracuse	Yes	Yes
1152 South 2000 West	12-205-0008	Syracuse	Yes	Yes
1140 South 2000 West	12-205-0009	Syracuse	Yes	Yes
1128 South 2000 West	12-205-0010	Syracuse	Yes	Yes
1116 South 2000 West	12-240-0031	Syracuse	Yes	Yes
1104 South 2000 West	12-240-0032	Syracuse	Yes	Yes
1100 South 2016 West	12-240-0033	Syracuse	Yes	Yes
~900 South 2000 West	12-048-0037	Syracuse	No	Yes
506 South 2000 West	12-035-0073	Syracuse	No	Yes
210 South 2000 West	12-035-0077	Syracuse	Yes	Yes
616 South 2000 West	12-035-0031	Syracuse	No	Yes
522 South 2000 West	12-035-0074	Syracuse	No	Yes
488 South 2000 West	12-035-0025	Syracuse	No	Yes
506 South 2000 West	12-035-0023	Syracuse	No	Yes
460 South 2000 West	12-035-0022	Syracuse	No	Yes
446 South 2000 West	12-035-0021	Syracuse	No	Yes
378 South 2000 West	12-035-0018	Syracuse	No	Yes
272 South 2000 West	12-035-0013	Syracuse	No	Yes
256 South 2000 West	12-035-0076	Syracuse	No	Yes
234 South 2000 West	12-035-0075	Syracuse	No	Yes
700 South 1903 West	12-050-0036	Syracuse	Yes	No
560 North 2000 West	14-369-0001	West Point	Yes	No
578 North 2000 West	14-064-0119	West Point	Yes	No
596 North 2000 West	14-064-0018	West Point	Yes	No
624 North 2000 West	14-064-0017	West Point	Yes	No
656 North 2000 West	14-064-0016	West Point	Yes	No
678 North 2000 West	14-064-0015	West Point	Yes	No
698 North 2000 West	14-064-0014	West Point	Yes	No
NA ^b	14-347-0001	West Point	Yes	No
734 North 2000 West	14-064-0071	West Point	Yes	No
796 North 2000 West ^c	14-064-0114	West Point	Yes	Yes
70 South 2000 West	12-033-0023	West Point	Yes	Yes



Address ^a	Parcel ID Number	City	Minimize 4(f) Impacts Alternative	West Alternative
58 South 2000 West	12-033-0017	West Point	Yes	Yes
14 South 2000 West	12-033-0016	West Point	Yes	Yes
12 South 2000 West	12-033-0013	West Point	Yes	Yes
10 South 2000 West	12-033-0015	West Point	No	Yes
15 North 2000 West	12-033-0012	West Point	No	Yes
37 North 2000 West	12-033-0011	West Point	Yes	Yes
45 North 2000 West	12-033-0010	West Point	Yes	Yes
NA ^c	12-033-0054	West Point	Yes	Yes
325 North 2000 West	14-055-0216	West Point	Yes	Yes
335 North 2000 West	14-055-0214	West Point	Yes	Yes
350 North 1994 West	14-055-0213	West Point	Yes	Yes
399 North 2000 West	14-055-0186	West Point	Yes	Yes
455 North 2000 West	14-055-0184	West Point	Yes	Yes
475 North 2000 West	14-055-0188	West Point	Yes	Yes
525 North 2000 West	14-055-0006	West Point	Yes	Yes
529 North 2000 West	14-055-0094	West Point	No	Yes
647 North 2000 West	14-055-0136	West Point	No	Yes
1283 North 2000 West	14-053-0094	West Point	Yes	No
607 North 2000 West	14-055-0189	West Point	No	Yes
607 North 2000 West ^d	14-055-0190	West Point	No	Yes
817 North 2000 West	14-053-0077	Clinton	No	Yes
881 North 2000 West	14-053-0065	Clinton	No	Yes
1141 North 2000 West	14-053-0098	Clinton	No	Yes
817 North 2000 West	14-053-0077	Clinton	No	Yes
1193 North 2000 West	14-053-0087	Clinton	No	Yes
2123 North 2000 West	14-019-0100	Clinton	Yes	Yes
1221 North 2000 West	14-053-0082	Clinton	No	Yes
1253 North 2000 West	14-053-0096	Clinton	No	Yes
1277 North 2000 West	14-053-0090	Clinton	No	Yes
1283 North 2000 West	14-053-0094	Clinton	No	Yes
1289 North 2000 West	14-053-0081	Clinton	Yes	Yes
NA ^b	14-021-0122	Clinton	No	Yes
NA ^b	14-317-0001	Clinton	No	Yes
1693 North 2000 West	14-021-0044	Clinton	No	Yes
1707 North 2000 West	14-021-0120	Clinton	No	Yes
1969 North 2000 West	14-019-0076	Clinton	No	Yes
1993 North 2000 West	14-019-0075	Clinton	No	Yes
2133 North 2000 West	14-019-0098	Clinton	Yes	Yes
2541 North 2000 West	13-049-0015	Clinton	No	Yes
2637 North 2000 West	13-049-0011	Clinton	No	Yes

Address ^a	Parcel ID Number	City	Minimize 4(f) Impacts Alternative	West Alternative
2647 North 2000 West	13-049-0001	Clinton	No	Yes
2657 North 2000 West	13-049-0002	Clinton	No	Yes
5976 South 3500 West	09-088-0004	Roy	Yes	Yes
5730 South 3500 West	09-088-0040	Roy	Yes	No
5491 South 3500 West	09-073-0012	Roy	Yes	Yes
5373 South 3500 West	09-073-0006	Roy	No	Yes
5307 South 3500 West	09-073-0009	Roy	Yes	Yes
5285 South 3500 West	09-073-0076	Roy	No	Yes
5269 South 3500 West	09-073-0051	Roy	No	Yes
~5225 South 3505 West	09-515-0011	Roy	No	Yes
~5225 South 3508 West	09-515-0001	Roy	No	Yes
5175 South 3510 West	09-198-0002	Roy	No	Yes
5137 South 3500 West	09-198-0003	Roy	No	Yes
5123 South 3500 West	09-198-0004	Roy	No	Yes
5093 South 3500 West	09-199-0002	Roy	No	Yes
5107 South 3500 West	09-199-0001	Roy	No	Yes
5077 South 3500 West	09-199-0003	Roy	No	Yes
5061 South 3500 West	09-199-0004	Roy	No	Yes
5041 South 3500 West	09-199-0005	Roy	No	Yes
4337 South 3100 West	08-303-0001	Roy	Yes	Yes
3515 West 5000 South	09-200-0001	Roy	No	Yes
3516 West 5000 South	09-200-0002	Roy	No	Yes
NA ^b	09-200-0003	Roy	No	Yes
3747 Midland Drive	08-022-0043	West Haven	Yes	Yes
3695 S. Midland Drive	08-022-0002	West Haven	Yes	Yes
3545 S. Midland Drive	08-028-0033	West Haven	Yes	Yes
3315 S. Midland Drive	08-006-0040	West Haven	Yes	Yes
1952 W. Midland Drive	15-094-0039	West Haven	Yes	Yes

^a A tilde (~) in front of an address indicates an approximate address.

^b Address not available

^c Property vacant

^d Combined single residence with parcel above



Exhibit 4.3-3 lists the residential properties that would be subject to potential relocation under the Minimize 4(f) Impacts Alternative.

Exhibit 4.3-3: Potential Residential Relocations

Address ^a	Parcel ID Number	City	Minimize 4(f) Impacts Alternative		West Alternative	
			Potential Relocation?	Distance (feet) ^b	Potential Relocation?	Distance (feet) ^b
1609 South 2000 West	12-052-0024	Syracuse	Yes	9.2	Yes	9.2
1220 South 2000 West	12-048-0051	Syracuse	Yes	1.8	Yes	1.8
1208 South 2000 West	12-048-0050	Syracuse	Yes	1.6	Yes	1.6
256 South 2000 West	12-035-0076	Syracuse	Yes	10.7	No	-
234 South 2000 West	12-035-0075	Syracuse	Yes	2.2	No	-
700 South 2018 West	12-035-0053	Syracuse	No	-	Yes	2.2
~650 South 2000 West	12-035-0049	Syracuse	No	-	Yes	6.3
636 South 2000 West	12-035-0032	Syracuse	No	-	Yes	4.1
602 South 2000 West	12-035-0030	Syracuse	No	-	Yes	14.8
572 South 2000 West	12-035-0029	Syracuse	No	-	Yes	14.9
554 South 2000 West	12-035-0028	Syracuse	No	-	Yes	6.5
368 South 2000 West	12-035-0017	Syracuse	No	-	Yes	12.0
334 South 2000 West	12-035-0050	Syracuse	No	-	Yes	10.1
322 South 2000 West	12-035-0016	Syracuse	No	-	Yes	13.1
320 South 2000 West	12-035-0014	Syracuse	No	-	Yes	12.5
150 South 2000 West	12-033-0018	West Point	Yes	8.0	Yes	8.0
10 South 2000 West	12-033-0015	West Point	Yes	1.1	No	-
15 North 2000 West	12-033-0012	West Point	Yes	1.4	No	-
49 North 2000 West	12-033-0009	West Point	Yes	3.6	Yes	3.6
300 North 2020 West	12-055-0218	West Point	Yes	9.6	Yes	9.6
389 North 2000 West	14-055-0063	West Point	Yes	4.8	Yes	4.4
463 North 2000 West	14-188-0023	West Point	Yes	3.4	Yes	2.3
529 North 2000 West	14-055-0094	West Point	Yes	7.0	No	-
535 North 2000 West	14-055-0146	West Point	No	-	Yes	8.0
561 North 2000 West	14-055-0221	West Point	No	-	Yes	5.5
581 North 2000 West	14-055-0091	West Point	No	-	Yes	3.1
667 North 2000 West	14-055-0109	West Point	No	-	Yes	7.1
685 North 2000 West	14-055-0039	West Point	No	-	Yes	6.8
695 North 2000 West	14-055-0038	West Point	No	-	Yes	9.0
750 North 2020 West	14-219-0015	West Point	No	-	Yes	12.6
755 North 2000 West	14-055-0195	West Point	No	-	Yes	3.4
783 North 2000 West	14-055-0220	West Point	No	-	Yes	7.6
1277 North 2000 West	14-053-0090	West Point	Yes	11.8	No	-
1071 North 2000 West	14-053-0066	Clinton	No	-	Yes	14.2
NA ^c	14-021-0122	Clinton	Yes	6.6	No	-

Address ^a	Parcel ID Number	City	Minimize 4(f) Impacts Alternative		West Alternative	
			Potential Relocation?	Distance (feet) ^b	Potential Relocation?	Distance (feet) ^b
1532 North 2030 West	14-311-0043	Clinton	No	-	Yes	13.1
1647 North 2000 West	14-317-0002	Clinton	No	-	No	-
NA ^c	14-317-0001	Clinton	Yes	11.8	No	-
1693 North 2000 West	14-021-0044	Clinton	Yes	4.3	No	-
1707 North 2000 West	14-021-0120	Clinton	Yes	5.2	No	-
1993 North 2000 West	14-019-0075	Clinton	Yes	10.3	No	-
2087 North 2000 West	14-264-0001	Clinton	Yes	12.1	Yes	6.6
2657 South 2000 West	13-049-0029	Clinton	No	-	Yes	5.3
2593 North 2000 West	13-049-0012	Clinton	No	-	Yes	7.8
5939 South 3500 West	09-084-0019	Roy	No	-	Yes	13.7
5859 South 3500 West	09-084-0016	Roy	No	-	Yes	9.4
5373 South 3500 West	09-073-0006	Roy	Yes	6.7	No	-
5345 South 3500 West	09-073-0052	Roy	No	-	Yes	7.2
5285 South 3500 West	09-073-0076	Roy	Yes	4.3	No	-
5269 South 3500 West	09-073-0051	Roy	Yes	3.3	No	-
5225 South ~3500 West	09-515-0011	Roy	Yes	12.6	No	-
5225 South ~3508 West	09-515-0001	Roy	Yes	12.6	No	-
4935 South 3500 West	09-072-0062	Roy	No	-	Yes	6.6
5041 South 3500 West	09-199-0005	Roy	Yes	12.7	No	-
3515 West 5000 South	09-200-0001	Roy	Yes	8.8	No	-
3516 West 5000 South	09-200-0002	Roy	Yes	11.1	Yes	-
2817 West 3965 South	08-444-0019	Roy	Yes	8.7	Yes	8.7
3801 South 2700 West	08-031-0002	Roy	Yes	11.8	Yes	8.4
3753 Midland Drive	08-180-0005	Roy	Yes	5.3	No	-
3675 Midland Drive	08-022-0001	West Haven	No	-	Yes	5.5
3889 Midland Drive	08-031-0007	West Haven	Yes	1.6	Yes	1.7
3883 Midland Drive	08-031-0009	West Haven	Yes	1.3	Yes	1.3
3860 S. Midland Drive	08-022-0024	West Haven	Yes	NA	Yes	-
3845 S. Midland Drive	08-031-0025	West Haven	Yes	2.0	Yes	2.0
3753 S. Midland Drive	08-180-0005	West Haven	Yes	5.3	Yes	5.3
3491 S. Midland Drive	08-028-0048	West Haven	Yes	2.2	Yes	2.2
2008 W. Midland Drive	15-094-0014	West Haven	Yes	9.4	Yes	9.4

^a A tilde (~) in front of an address indicates an approximate address.

^b This is the distance measured from the edge of the proposed right-of-way to the closest part of the structure located on the property.

^c Address not available.



Businesses

This section discusses the expected business relocations and potential relocations. Strip takes are not discussed in this section.

The Minimize 4(f) Impacts Alternative would displace businesses within the right-of-way. Neither action alternative would displace public facilities along S.R. 108, although strip takes would be required from several facilities as discussed in Section 4.3.2.4, Community Facilities.

UDOT would be required by the Uniform Relocation Assistance Act to purchase the business properties at a fair market value. In addition, the Uniform Relocation Assistance Act provides payments, within limits, for certain moving and re-establishment expenses associated with relocating displaced businesses within the area. There is a large amount of undeveloped land along S.R. 108, and the potential for successfully relocating a displaced business is high.

Exhibit 4.3-4 below lists the locations of the six businesses that would be subject to relocation and the nine businesses that would be subject to potential relocation under the Minimize 4(f) Impacts Alternative. No public facilities would be subject to relocation or potential relocation.

Exhibit 4.3-4: Business Relocations and Potential Relocations

Address	Business/Public Facility	Type of Impact	
		Minimize 4(f) Impacts Alternative	West Alternative
1566 South 2000 West	Checker Auto Parts	Potential relocation	Potential relocation
1663 South 2000 West	American Family Insurance	Relocation	Relocation
~880 North 2000 West (east side of road)	LDS Agricultural Business Accessory Building	Relocation	No impact
850 South 2000 West	Utah Onions, Inc.	Relocation	Relocation
1630 North 2017 West	Mark Higley Construction	No impact	Potential relocation
2019 North 2000 West	Swan Falls, Ponds & Waterfalls	Relocation	Relocation
2056 North 2000 West	Harris Feed & Seed/ Boarded-up business	Potential relocation	No impact
2300 North 2016 West	Patterson Excavation and Hauling	Potential relocation	Potential relocation
4800 South 3536 West	Phillips 66/Triple Stop	Relocation	Relocation
4795 South 3536 West	Triple Stop Auto Sales	Potential relocation	Relocation
3805 S. Midland Dr.	Midland Gas and Grocery	No impact	Relocation
4645 S. Midland Dr. #1	Professional Haven Office Building	No impact	Relocation
4815 S. Midland Drive	Summit One Credit Union/Packard Dental	No impact	Relocation
2201–2173 North 2000 West	Great Harvest	Potential relocation	Relocation
1800 North 2003 West	Boarded up business/for sale	No impact	Relocation
1829 North 2000 West	Albertson's Express	No impact	Potential relocation
1867 North 2000 West	Blockbuster Video	No impact	Potential relocation
6000 South 3500 West	Weber State Credit Union	No impact	Relocation
5975 South 3500 West	Weston's Glass and Hardware	No impact	Potential relocation
3997 Midland Drive	Wylde Hare Farms	Potential relocation	Potential relocation
~4100 S. Midland Drive	Mountain States Telephone	Potential relocation	Potential relocation
3441 S. Midland Drive	AR Aluminum, Inc.	Relocation	Relocation
3805 S. Midland Drive	Midland Gas & Grocery	Potential relocation	Potential relocation
1996 S. Midland Drive	Trace Minerals Research	Potential relocation	Potential relocation



Summary of Relocations and Potential Relocations under the Minimize 4(f) Impacts Alternative

Exhibit 4.3-5 summarizes the residential and business relocations and potential relocations under the Minimize 4(f) Impacts Alternative.

Exhibit 4.3-5: Summary of Relocations and Potential Relocations under the Minimize 4(f) Impacts Alternative

Type of Impact	Minimize 4(f) Impacts Alternative
<i>Residential Properties</i>	
Relocations	55
Potential relocations	38
<i>Business Properties</i>	
Relocations	6
Potential relocations	9
Total	108

4.3.2.7 Public Services and Utilities

Impacts to utilities and public services would be temporary and would occur during construction. The construction contractor would contact local businesses and residences if any loss of service is required during construction.

In general, utilities were considered to be affected if the utility would need to be relocated (that is, lowered farther into the ground). The alternative would cross some facilities (including water, sewer, canals, and storm drainage) perpendicularly, and the effects on these utilities would be determined by UDOT by working with local jurisdictions during the final design of the project once a Preferred Alternative is selected. Impacts to these facilities can often be avoided during final design. UDOT would continue to communicate with local jurisdictions throughout the development of the project.

The existing S.R. 108 pavement varies in depth from about 24 inches to 30 inches. The depth of the pavement over existing utilities varies from 18 inches to 36 inches, with some very deep utility lines 6 feet to 8 feet deep. If the existing pavement is totally removed and

replaced during construction, it is likely that most utilities would be exposed or barely covered. Therefore, most utilities would likely need to be relocated before the new roadway is constructed.

Building the proposed underpass in Clinton at 2050 North would affect irrigation, water, sewer, buried telephone, and buried fiber-optic utility services.

4.3.3 West Alternative

4.3.3.1 Neighborhood and Community Cohesion

The impacts to neighborhood and community cohesion from the West Alternative would be the same as those from the Minimize 4(f) Impacts Alternative. The West Alternative would have no substantial direct or indirect effects on neighborhood and community cohesion.

4.3.3.2 Quality of Life

The impacts to quality of life from the West Alternative would be the same as those from the Minimize 4(f) Impacts Alternative. The West Alternative would have no substantial direct or indirect effects on quality of life.

4.3.3.3 Recreation Resources

The West Alternative would have no direct or indirect effects on any recreation resources.

The West Alternative would not directly affect Centennial Park or Founders Park. This alternative would not require right-of-way from either park and would not affect access to the facilities.

4.3.3.4 Community Facilities

The West Alternative would have no substantial direct or indirect effects on any community facilities.

Nine community facilities front S.R. 108 or are accessed by S.R. 108. The West Alternative would have the following direct impacts:

- Syracuse Junior High School: strip take (frontage)
- Church at 1560 South 2000 West, Syracuse: strip take (frontage)
- Church at 4607 Midland Dr., West Haven: strip take (frontage)



All of the impacts would involve strip takes of property needed for roadway right-of-way. None of the facilities would need to be relocated, and the strip takes would not affect the day-to-day operation of the facilities or the portions of the facilities used for recreation. The impacts would not cause any long-term, permanent adverse effects to any of the facilities.

4.3.3.5 Public Health and Safety

Emergency Response

The West Alternative would have no direct or indirect effects on emergency facilities and would benefit emergency response times because there would be less congestion on S.R. 108.

The West Alternative would not directly affect any law enforcement or fire-protection facilities. Impacts to response times under the West Alternative would be the same as those under the Minimize 4(f) Impacts Alternative.

School Safety

The West Alternative would require right-of-way from the Syracuse Junior High School campus. This partial take would affect property frontage along S.R. 108 only and would not permanently affect the school parking lot or bus access points. No other school properties would be directly affected by this alternative.

The operational and construction-related impacts to school safety, and the use of raised medians, would be the same as those from the Minimize 4(f) Impacts Alternative.

4.3.3.6 Relocations

Impacts to Residences

Exhibit 4.3-2: Residential Relocations above lists the residential properties that would be subject to relocation under the West Alternative.

Overall, the S.R. 108 region has a wide variety of available housing that is in good condition. The median home price in the cities along S.R. 108 ranges from about \$131,000 to about \$207,000 and varies by jurisdiction. As discussed in Section 3.3.7.1, Housing Market

Conditions, there are ample available housing units within each county and along S.R. 108. These data indicate that displaced homeowners should be able to find affordable replacement housing in or near the communities in which they now live.

Exhibit 4.3-3: Potential Residential Relocations above lists the residential properties that would be subject to potential relocation under the West Alternative.

Businesses

Exhibit 4.3-4: Business Relocations and Potential Relocations above lists the locations of the 12 businesses that would be subject to relocation and the 10 businesses that would be subject to potential relocation under the West Alternative. No public facilities would be subject to relocation or potential relocation.

UDOT would be required by the Uniform Relocation Assistance Act to purchase the business properties at a fair market value. In addition, the Uniform Relocation Assistance Act provides payments, within limits, for certain moving and re-establishment expenses associated with relocating displaced businesses within the area. There is a large amount of undeveloped land along S.R. 108, and the potential for successfully relocating a displaced business is high.

Summary of Relocations and Potential Relocations under the West Alternative

Exhibit 4.3-6 summarizes the residential and business relocations and potential relocations under the West Alternative.

Exhibit 4.3-6: Summary of Relocations and Potential Relocations under the West Alternative

Type of Impact	West Alternative
<i>Residential Properties</i>	
Relocations	96
Potential relocations	47
<i>Business Properties</i>	
Relocations	12
Potential relocations	10
Total	165



4.3.3.7 Public Services and Utilities

The impacts to public services and utilities from the West Alternative would be the same as those from the Minimize 4(f) Impacts Alternative.

4.3.4 Mitigation Measures for Community Impacts

4.3.4.1 Public Health and Safety

If raised medians are incorporated into the final design, the sponsoring agencies will ensure that the locations of the medians will not interfere with emergency service providers' ability to respond to emergencies. Raised medians will also be placed near schools and busy commercial centers so that pedestrians have a relatively safe place to stop when crossing the road.

During the final design of the project, UDOT will coordinate modifications to the existing school crossing zones for Syracuse Junior High School, Syracuse Elementary School, and Syracuse High School with those schools to ensure that roadway improvements maintain student safety at those crossing locations.

During construction, equipment and excavations could pose a safety hazard for students who walk to school on S.R. 108. Before construction begins, the contractor will coordinate with the schools so that appropriate safety measures can be implemented. These measures could include avoiding construction during the morning and afternoon while students are walking to school and providing a safety monitor to watch students as they walk to school near the construction areas.

4.3.4.2 Relocations

The loss of residences or businesses due to either of the action alternatives will be mitigated according to federal, state, and local relocation policies. Assistance and re-establishment expenses will be provided to the displaced property owners and lease holders according to eligibility requirements and other requirements of the Uniform Relocation Assistance Act of 1970, as amended. Relocation resources will be available to each relocated resident and business without discrimination. UDOT will evaluate the need to provide early right-of-way acquisition for those property owners that demonstrate a hardship because of this project.

If housing of comparable size and value to that being acquired is not available (or is not available within the Uniform Relocation Assistance Act's payment limits), UDOT will invoke a process called "housing of last resort." This process allows necessary replacement housing for relocated homeowners through any of several methods, including:

- Purchasing a comparable residential property and making it available to the relocated person in exchange for the acquired property
- Relocating and rehabilitating (if necessary) a dwelling purchased by UDOT and making it available to the relocated person in exchange for the acquired property
- Purchasing, rehabilitating, and/or constructing additions to an existing dwelling to make it comparable to a particular acquired property
- Purchasing land and constructing a new replacement dwelling comparable to a particular acquired property when comparable dwellings are not otherwise available
- Other measures that fairly compensate for the acquired property

The Uniform Relocation Assistance Act also contains allowances for renters. A one-time rental assistance payment is available that is intended to cover 42 months of rent in a decent, sanitary, safe dwelling. This period could be increased if necessary to fully mitigate affected households. Extensions are considered on a case-by-case basis depending on individual circumstances.

What assistance and compensation are available for relocated residents and business owners?

UDOT would acquire the necessary right-of-way consistent with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and Title VI of the Civil Rights Act of 1964. These policies ensure the uniform and equitable treatment of all people displaced from their homes, businesses, and farms without discrimination on any basis. Relocation resources are available to all residents and businesses that are relocated, and the process for acquiring replacement housing and other sites will be fair and open.



4.3.4.3 Public Services and Utilities

The UDOT document Accommodation of Utilities and the Control and Protection of State Highway Rights-of-Way, Utah Administrative Code Rule 930-6, will be followed. The construction contractor will contact local businesses and residences if any loss of service is required during construction.

4.4 Impacts to Environmental Justice Populations

Executive Order 12898, Federal Actions To Address Environmental Justice in Minority and Low-Income Populations, mandates that all federal actions be reviewed for possible disproportionate effects on minority or low-income populations, also known as environmental justice (EJ) populations. This section considers whether the community, economic, noise, air quality, safety, and construction impacts of the S.R. 108 action alternatives would disproportionately affect environmental justice populations. This analysis is based on the improvements to S.R. 108, public input, and meetings with city and county planning officials, school districts, and low-income-housing providers. A disproportionately high and adverse effect on an environmental justice population would occur if:

- The adverse effect is predominantly borne by the environmental justice population.
- The adverse effect on the environmental justice population is appreciably more severe or greater in magnitude than the adverse effect on the non-environmental justice population.
- The project affects a resource that is especially important to an environmental justice population.

What is the environmental justice impact analysis area?

The environmental justice impact analysis area is the area within one-half mile of S.R. 108.

The expected impacts to EJ populations were determined by overlaying the project alternatives on an aerial photograph of S.R. 108. The alternatives were examined for direct land-based impacts and for potential indirect impacts related to accessibility and mobility. The impact analysis considers the following EJ groups:

- **Contiguous block groups 125304-2, 125305-1, 125501-3, 125501-4, and 125503-5 on the east side of S.R. 108 in Davis County** (see Exhibit 3.4-1: Census Tract and Block Groups). These block groups have a percentage of racial and ethnic minority residents that is higher than the county averages (1.2 and 1.5 percentage points higher, respectively). Block groups 125304-2 and 125503-5 also have higher percentages of persons living below poverty level than the county as a whole (an average of 6.9 percentage points higher).
- **Syracuse Junior High School Service Area, Davis School District, Davis County.** This school service area has a percentage of minority students that is 4.2 percentage points higher than the district average. The service area overlaps with block groups 125501-4 and 125503-5.
- **Midland Elementary School Service Area, Weber School District, Weber County.** This school service area has a percentage of minority students that is 8.8 percentage points higher than the district average and a percentage of students who are eligible for free or reduced-price lunches (an indicator of poverty) that is 3.1 percentage points higher than the county average.

There are 13 HCVP housing units (also known as Section 8 units) scattered throughout the impact analysis area (see Exhibit 3.4-5: Indicators of Environmental Justice Populations). The S.R. 108 action alternatives would not directly affect any of the HCVP units.

Block group 201900-1 at the northern end of the impact analysis area in Weber County has very high percentages of ethnic and racial minorities and of persons living below the poverty level. However, this block group is not included in the analysis because the area of the block group close to the project terminus is used mainly for light industry and there is no housing nearby. Any EJ populations in this block group are probably living farther east in Ogden. See Section

What are accessibility and mobility?

Accessibility refers to the ability of residents to access goods and services. For example, an accessible city hall is one that is easy to find and get to.

Mobility refers to the ease with which residents can move through their communities. For example, an area with good mobility is one that provides numerous ways to physically access a particular good or service.

What is a block group?

Census data are reported by larger geographical areas called *census tracts* and smaller areas within the census tracts called *block groups*. A census tract–block group number such as 125501-3 indicates both the census tract (125501) and the block group (3). For simplicity, census tract–block groups are referred to as block groups in this EIS.



3.4.4.1, Census Data for Minority Populations, for more information about block group 201900-1.

As described in Section 3.4.3, Public Outreach, this EIS was developed using a broad-based citizen participation program. In addition to the activities described in Section 3.4.3, the public also had an opportunity to participate through community meetings and updates given to city councils. Meeting invitations and the community survey described in Section 3.4.3 were provided to all residents along S.R. 108. The survey responses did not identify any specific EJ issues or important physical locations, such as gathering places or EJ communities, along S.R. 108.

4.4.1 No-Action Alternative

Under the No-Action Alternative, no capacity or safety improvements would be made to S.R. 108. The existing traffic and congestion conditions would continue to affect the communities along S.R. 108, including areas with EJ populations. Such effects are not expected to disproportionately affect EJ populations because all communities would experience the effects of traffic and congestion equally.

Under the No-Action Alternative, there would be no project construction, so there would be no construction-related dust, noise, access, or other nuisance impacts on people in the impact analysis area.

4.4.2 Minimize 4(f) Impacts Alternative

In general, the Minimize 4(f) Impacts Alternative would have beneficial effects on all populations in the impact analysis area, including environmental justice populations. All communities would benefit from improvements to roadway safety, roadway mobility, and traffic flow. The following discussion focuses on how the Minimize 4(f) Impacts Alternative would specifically affect the identified EJ communities.

4.4.2.1 Block Groups on the East Side of S.R. 108 in Davis County

The Minimize 4(f) Impacts Alternative would require nine residential relocations in block group 125501-3 and two potential residential relocations in block group 125503-5.

As noted in Section 4.3.2.6, Relocations, the Minimize 4(f) Impacts Alternative would result in a total of 55 residential relocations. The potential relocations in block group 125503-5 are over 2 miles from the nine relocations in block group 125501-3. These isolated potential relocations would not cause disproportionate effects to minority or low-income populations.

Block group 125501-3 has a percentage of minority residents that is higher than the Davis County average. The Minimize 4(f) Impacts Alternative would require residential relocations for east-side properties from about 560 North to 800 North. This stretch of the alternative alignment is designed to avoid relocation impacts to two Section 4(f) properties on the west side of S.R. 108. Avoiding relocation impacts to block group 125501-3 would cause impacts to two Section 4(f) properties as well as relocation impacts to up to eight other non-4(f) properties on the west side of S.R. 108.

Block group 125501-3 includes much more area than just the properties that front S.R. 108. Neither the overall population nor the racial and ethnic composition of the block group would be affected by the loss of these nine properties. The residential relocations in this block group are a portion of the total number of relocations required by this alternative (55 relocations and 38 potential relocations), and other non-EJ communities would experience similar relocation effects as a result of this alternative. Given that the affected area is a small fraction of the overall block group and that relocations for this alternative would be distributed throughout the cities regardless of race, the Minimize 4(f) Impacts Alternative would not cause disproportionate effects to the block groups on the east side of S.R. 108 in Davis County.

What impacts would the Minimize 4(f) Impacts Alternative have on block groups 125501-3 and 125503-5?

The Minimize 4(f) Impacts Alternative would not cause disproportionate effects to these block groups.

4.4.2.2 Syracuse Junior High School Service Area

Syracuse Junior High School is on the west side of S.R. 108 near Antelope Drive at the southern end of the project. The project could affect how students who live east of S.R. 108 access the school.



The Minimize 4(f) Impacts Alternative would require a partial (strip) take of land from the school's frontage. This take would not affect access to or operation of the school and would not cause disproportionate effects to minority and low-income students.

Construction-related impacts could also affect students walking to school. The Syracuse Junior High Child Access Routing Plan for the 2006–2007 school year states that about 195 students access the school by walking from areas in block groups on the east side of S.R. 108 that have EJ populations (block groups 125501-4 and 125503-5). These students use sidewalks along residential streets between their homes and S.R. 108 (2000 West). Students must currently walk to the traffic light at Antelope Drive (1700 South) or to the school crossing zone at Syracuse Elementary School at about 1500 South to cross S.R. 108 safely. See Section 3.3.6.2, School Safety, for more information about school safety.

According to Syracuse Junior High School Principal Dr. Robin Bowden, racial and ethnic minority students are distributed throughout the school service area and make up a very small percentage of the student body. Dr. Bowden confirmed that there are generally more minorities east of S.R. 108, but she does not believe that construction-related activities would disproportionately affect minority students walking to school from east of S.R. 108 (Bowden 2007).

4.4.2.3 Midland Elementary School Service Area

Midland Elementary School is east of S.R. 108 at 4800 South 3100 West in Roy. The school's western boundary is S.R. 108, so most students come from neighborhoods east of S.R. 108 that are not directly accessed by S.R. 108. The Midland Elementary Child Access Routing Plan for the 2006–2007 school year states that there are about 85 students in the triangular area bounded by S.R. 108 (Midland Drive), 4800 South, and 3100 West. Students walking to school from this area travel from their homes to a crossing zone at the 4800 South/3100 West intersection and do not have to cross S.R. 108, so no impacts are expected.

4.4.2.4 Overall Community Impacts

Social and Economic Conditions. As described in Section 3.3, Social Environment, and Section 3.6, Economic Conditions, the Minimize 4(f) Impacts Alternative would not cause any community cohesion or economic impacts to the local communities overall, so there would be no community cohesion or economic impacts to EJ communities.

Noise. As described in Section 4.10, Noise Impacts, the Minimize 4(f) Impacts Alternative would increase noise levels by about 1 dBA to 7 dBA at residences close to S.R. 108. An increase in noise levels of 1 dBA to 2 dBA would not be discernible by humans. There would be no disproportionate noise impacts to EJ communities.

Air Quality. As noted in Section 3.9.5, Current Air Quality Status, the S.R. 108 project corridor is in attainment for all priority pollutants with the exception of O₃. O₃, which is formed by a reaction of NO_x and volatile organic compounds, irritates the eyes and respiratory tract and increases the risk of respiratory and heart diseases. Section 4.9.3, Minimize 4(f) Impacts Alternative, describes the long-term air quality impacts of the Minimize 4(f) Impacts Alternative. The project would not cause the NAAQS to be exceeded.

Safety. As described in Section 3.3.3.1, Safety, people living along S.R. 108 generally feel that their communities are safe places to live. However, residents have concerns about traffic safety along the corridor; most concerns are related to congestion and unsafe driving conditions such as the difficulty of making turns onto and off of S.R. 108. Local emergency service providers have noted that existing traffic conditions can affect emergency response. As described in Section 3.3.6.2, School Safety, the safety of students walking to schools located on S.R. 108 is also an important consideration.

The Minimize 4(f) Impacts Alternative would improve traffic safety along S.R. 108. These improvements would apply to all communities along S.R. 108 regardless of race, ethnicity, or income. It is likely that project improvements would also lead to corridor-wide improvements in emergency response times and pedestrian safety. The benefits would be experienced by all persons living along S.R. 108.



Construction Impacts. Short-term, temporary construction-related noise, air quality, community, and safety impacts from the project would affect all communities along S.R. 108 (see Section 4.20, Construction Impacts). Since all residents would experience impacts equally, construction-related impacts would not disproportionately affect minority or low-income persons.

4.4.2.5 Summary

As a whole, most persons living in the project region are Caucasian and are living above the poverty level. Minority and low-income populations are present in Ogden to the northeast, but both Davis and Weber Counties are dominated by Caucasian, moderate-income families. The proposed changes to S.R. 108 would improve corridor accessibility for all residents of the region regardless of race, ethnicity, or income. The Minimize 4(f) Impacts Alternative would not cause disproportionately high and adverse effects on any environmental justice populations along S.R. 108.

4.4.3 West Alternative

As with the Minimize 4(f) Impacts Alternative, the West Alternative would have beneficial effects on all populations in the impact analysis area, including EJ populations. The West Alternative includes similar improvements to roadway safety, roadway mobility, and traffic flow. The following discussion focuses on how the West Alternative would specifically affect the identified EJ communities.

4.4.3.1 Block Groups on the East Side of S.R. 108 in Davis County

Because the West Alternative would widen the roadway only to the west side of S.R. 108, impacts to properties in the Davis County block groups east of S.R. 108 would be minor. The West Alternative would cause two relocations, one in block group 125501-3 and one in block group 125503-5, and one potential relocation in block group 125503-5. The relocations and potential relocation are not concentrated in any one area and collectively would not cause disproportionate effects to minority or low-income populations living in the impact analysis area.

What impacts would the West Alternative have on block groups 125501-3 and 125503-5?

The West Alternative would not cause disproportionate effects to these block groups.

4.4.3.2 Syracuse Junior High School Service Area

The West Alternative would affect the same physical area of the Syracuse Junior High School grounds as the Minimize 4(f) Impacts Alternative would. The West Alternative would have the same impacts on minority students who attend Syracuse Junior High School as the Minimize 4(f) Impacts Alternative would.

4.4.3.3 Midland Elementary School Service Area

The West Alternative would have the same impacts to minority and low-income students who attend Midland Elementary School as the Minimize 4(f) Impacts Alternative would.

4.4.3.4 Overall Community Impacts

The West Alternative would have the same impacts on community cohesion, economic conditions, noise, air quality, and safety and the same construction-related impacts as the Minimize 4(f) Impacts Alternative would.

4.4.3.5 Summary

The West Alternative would not indirectly affect any populations of a specific race, ethnicity, or income. The West Alternative would not cause disproportionately high and adverse effects on any EJ populations along S.R. 108.



4.5 Transportation Impacts

This section discusses how the roads that intersect or are adjacent to S.R. 108 would operate under the No-Action and action alternatives in 2030. The year 2030 was used because that is the current planning horizon of the WFRC's travel demand model.

4.5.1 No-Action Alternative

Under the No-Action Alternative, S.R. 108 would continue to operate at LOS F between Antelope Drive and 1900 West. Exhibit 4.5-1 below shows the expected congestion on the parallel north-south and intersecting east-west roads in 2030 compared to current conditions in 2005. The level of service on five of the east-west roads is expected to improve under the No-Action Alternative compared to existing conditions because these roads would be improved as specified in the Wasatch Front Regional Council's Long-Range Transportation Plan. Of the 16 roads evaluated, six would operate at a decreased level of service compared to existing conditions, and five would not change. (See Section 1.4.3, Current and Future Traffic Congestion, for more information about level of service.)

The regional transit system would be affected by the increased congestion levels on S.R. 108 under the No-Action Alternative as buses are delayed by the heavy traffic. In addition, without improvements to S.R. 108, buses would not be able to pull out of traffic, which would further increase congestion. The existing UTA Route 626 would experience regular congestion as S.R. 108 operates at LOS F. The congestion on this bus route could lead to problems such as the bus consistently operating behind schedule. In addition, east-west feeder routes that serve UTA's planned commuter rail line into Salt Lake City would also experience congestion where they cross S.R. 108, particularly along 4000 South in Roy and 700 South in Clearfield where commuter-rail stations are planned.

What is the transportation impact analysis area?

The transportation impact analysis area includes the roads that intersect S.R. 108 and the transit that currently operates on S.R. 108.

What is the Wasatch Front Regional Council's travel demand model?

The Wasatch Front Regional Council's travel demand model is a tool for predicting future traffic and level of service conditions on regional roadways including S.R. 108.

Exhibit 4.5-1: Level of Service in 2030 on Roadways Intersecting or Paralleling S.R. 108

Road (County)	Number of Travel Lanes in 2030	Level of Service		
		Existing Conditions (2005)	No-Action Alternative (2030)	Action Alternatives (2030)
North-South Roads				
I-15	8	E	F	E
S.R. 126	4	E	F	F
1000 West (Davis)	2	D	E	E
2700 West (Weber)	2	A	A	A
4500 West (Davis)	2	A	F	F
5900 West (Weber)	2	A	A	A
Bluff Road	2	A	A	A
East-West Roads				
Antelope Drive	4	F	C	C
200 South (Davis)	4	A	C	C
300 North (Davis)	2	D	C	C
800 North (Davis)	2	D	D	D
1800 North (Davis)	4	D	C	C
2300 North (Davis)	2	A	A	A
5500 South (Weber)	2	E	F	F
4800 South (Weber)	2	E	B	B
4000 South (Weber)	4	C	A	A

4.5.2 Minimize 4(f) Impacts Alternative

Under the Minimize 4(f) Impacts Alternative, the level of service on S.R. 108 would improve to LOS E or better on all segments in 2030. As shown above in Exhibit 4.5-1, improving S.R. 108 to five lanes would not decrease the level of service on other intersecting or parallel roads compared to the No-Action Alternative. Improving S.R. 108 would help reduce congestion on I-15 from LOS F to LOS E in 2030 by providing an alternate north-south road for local traffic.

The S.R. 108 roadway improvements should improve access to businesses along the corridor so that residents can shop locally instead of traveling to the main commercial corridor, S.R. 126, which is about 2 miles to the east. Less congestion on S.R. 108 would allow more commercial development and improved access to



businesses, which would encourage local residents to shop closer to home. This would reduce regional travel times and distances compared to the No-Action Alternative.

The Minimize 4(f) Impacts Alternative would be consistent with general transit service plans along S.R. 108. Because this alternative would include shoulders to allow buses to pull out of traffic and would reduce congestion on S.R. 108, Bus Route 626 would operate more efficiently than it would under the No-Action Alternative. Although this alternative would reduce localized congestion, this improvement would not increase or decrease transit ridership in the area.

4.5.3 West Alternative

The transportation and transit impacts from the West Alternative would be the same as those from the Minimize 4(f) Impacts Alternative.

4.6 Economic Impacts

This section discusses the expected economic impacts from the No-Action and action alternatives. Roadway widening and access changes could affect local businesses and employment, the tax base, and overall investment in the project area.

Aerial photographs, county assessor property data, and the results of a drive-through survey of the S.R. 108 corridor were used to verify the businesses along S.R. 108. For this analysis, two types of impacts to business properties were considered: direct impacts (relocations) and proximity impacts (potential relocations). Land-only impacts (strip takes) are not discussed in this section.

A **direct impact (relocation)** to a business occurs when an existing structure is within the proposed right-of-way of the proposed improvements. These structures include not only the primary business structure but also other buildings that are not attached to the main building. This type of impact is referred to as a *relocation* because the entire property would need to be acquired and the business would need to relocate.

A **proximity impact (potential relocation)** occurs when a business is not directly affected by the proposed improvements, but there is an

What is the economic impact analysis area?

The economic impact analysis area includes Weber and Davis Counties, the cities along S.R. 108, and the businesses adjacent to the roadway that could experience adverse or beneficial impacts from construction and operation of an improved S.R. 108.

impact to the property and the structure is within 15 feet of the proposed right-of-way. Structures that are potentially affected would not likely require relocation, but part of the surrounding property might be acquired. In cases where the partial acquisition of a property would hinder access to or the functionality of a business (such as with a loss of parking), the entire property might be acquired, and this would be considered a direct impact.

Land-only impacts (strip takes) that don't affect the access or functionality of a business are not included in the exhibits for this section.

Acquisition of property for right-of-way along S.R. 108 would convert taxable land to a nontaxable transportation use. To evaluate impacts to property tax revenue, current property tax rates were applied to the total market value for the right-of-way that would be acquired. Impacts to retail sales taxes are also considered in this section.

4.6.1 No-Action Alternative

The No-Action Alternative would not require the acquisition of land for additional right-of-way and so would not result in the relocation of businesses or loss of sales tax revenues. However, as congestion increases and safety decreases on S.R. 108 under the No-Action Alternative, businesses could lose revenue as the public uses alternate, less-congested commercial districts in the region.

4.6.2 Minimize 4(f) Impacts Alternative

The proposed improvements to S.R. 108 would change the local economic conditions along S.R. 108 and in the cities along S.R. 108. Although there would be some minor economic impacts from the loss of some businesses and the resulting loss of sales tax, the roadway improvements overall would benefit the local economy by reducing congestion, improving safety, and making businesses more accessible. The cities along S.R. 108 are planning to make the corridor either a primary or secondary commercial area and have included in their plans a widened S.R. 108 to help support the proposed economic development.



4.6.2.1 Business Access and Relocation Impacts

Widening S.R. 108 would affect some of the businesses along S.R. 108. The acquisition of right-of-way would require some businesses to be relocated, and proximity impacts would cause some loss of property. In addition, changes in accessibility along S.R. 108 could affect businesses adjacent to S.R. 108 as the public uses alternate, less-congested commercial districts in the region.

All property acquisitions resulting from the project would comply with the Uniform Relocation Assistance Act, as amended; Title VI of the Civil Rights Act of 1964; and 49 CFR 24, Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs.

Exhibit 4.6-1 summarizes the business impacts from the Minimize 4(f) Impacts Alternative. This alternative would require the relocation of six businesses: American Family Insurance; Swan Falls, Ponds & Waterfalls; Phillips 66/Triple Stop; an accessory structure at an LDS agricultural business; Utah Onions, Inc.; and AR Aluminum, Inc. These relocations would result in the loss of about 127 to 212 employees, although the employees of the LDS agricultural business are seasonal. These businesses could likely be relocated along S.R. 108 given the availability of commercial and vacant property and the conversion of residential properties to commercial uses.

Exhibit 4.6-1: Business Relocations under the Minimize 4(f) Impacts Alternative

Business	Business Type	Address	Estimated Employees	Type of Impact
American Family Insurance	Insurance	1663 South 2000 West	1–19	Relocation
Swan Falls, Ponds & Waterfalls	Retail lawn and garden	2019 North 2000 West	3–8	Relocation
Phillips 66/Triple Stop	Gas station/food mart	3536 West 4800 South	10–15	Relocation
LDS agricultural business	Agriculture	About 880 North 2000 West (east side of road)	5–20 ^a	Relocation
Utah Onions, Inc.	Wholesale onions	850 South 2000 West	8–50 ^a	Relocation
AR Aluminum, Inc.	Manufacturing	3441 S. Midland Drive	100	Relocation

Sources: U.S. Census Bureau 2002b; U.S. Department of Agriculture 2002; HDR 2006c

^a Seasonal employees

Proximity impacts to some businesses along S.R. 108 would involve the acquisition of part of their lot, mainly lot frontage or parking areas. These businesses, which are shown in Exhibit 4.6-2, would not likely require relocation. However, the proposed right-of-way for S.R. 108 would be closer to each structure and could affect traffic circulation or parking in the lot.

Exhibit 4.6-2: Potential Business Relocations under the Minimize 4(f) Impacts Alternative

Business	Business Type	Address
Checker Auto Parts	Auto parts	1566 South 2000 West
Triple Stop Auto Sales	Auto sales, storage	3500 West 4785 South
Patterson Excavation and Hauling	Construction	2300 North 2016 West
Great Harvest	Bakery	2201–2173 North 2000 West
Harris Feed & Seed	Farm and garden	2056 North 2000 West
Wylde Hare Farms	Home business	3997 S. Midland Drive
Mountain States Telephone	Telephone infrastructure	~4100 S. Midland Drive
Midland Gas & Grocery	Gas station	3805 S. Midland Drive
Trace Minerals Research	Minerals testing and research	1996 S. Midland Drive

4.6.2.2 Property Tax Impacts

Property tax impacts can be analyzed at two jurisdictional levels: the county level and the municipality level. The county level includes the sum of all land in unincorporated areas and municipalities inside the county, while the municipal level includes only land within the municipality. The tax rates were obtained for each jurisdiction and applied to the total value of land in the respective taxing area.

Exhibit 4.6-3 below shows the impacts to property tax revenues as a result of acquiring private land under the Minimize 4(f) Impacts Alternative in Davis and Weber Counties and the affected municipalities. Overall, less than 1% of the property tax base of Davis and Weber Counties would be removed.



Exhibit 4.6-3: Property Tax Impacts to Counties and Municipalities from the Minimize 4(f) Impacts Alternative

Area	Property Tax Impact	Property Tax Revenues (2004)	Percent of Total Tax Revenues
Davis County	\$61,171	\$23,824,600	0.3%
Syracuse	\$13,922	\$582,100	2.4%
West Point	\$13,060	\$1,006,700	1.3%
Clinton	\$14,584	\$904,000	1.6%
Weber County	\$88,644	\$28,303,700	0.3%
Roy	\$26,054	\$2,007,000	1.3%
West Haven ^a	—	—	—

Sources: Utah State Tax Commission 2006; Utah State Auditor's Office 2006

^a The Town of West Haven has no property tax levy and would be unaffected.

In the affected municipalities, the largest impact as a percent of total property tax revenues would occur in Syracuse, where about 2.4% of the \$582,100 tax base would be lost. Overall, the impact to the property tax base of the counties and municipalities from the Minimize 4(f) Impacts Alternative would be small. There would not be substantial impacts to the property tax bases for either the counties or the municipalities. The anticipated growth in the communities would likely overcome this impact with continued development, which would add revenues to the tax base and offset the loss of property taxes from this alternative.

4.6.2.3 Sales Tax Impacts

In the long term, the Minimize 4(f) Impacts Alternative would have a positive impact on local option use taxes within the municipalities. Sales taxes are collected on products produced by the commercial and industrial sectors and are sold to end users. Negative impacts to sales tax revenues occur when a business is displaced or removed from a taxing jurisdiction, which removes the business's contribution to the local jurisdiction's tax base. Positive impacts to sales tax revenues occur when more businesses open in a taxing jurisdiction.

Of the businesses that would be displaced by the Minimize 4(f) Impacts Alternative, only three generate sales taxes: Swan Falls, Ponds & Waterfalls; Phillips 66/Triple Stop; and AR Aluminum, Inc. The displacement of these three businesses would result in the loss of

retail sales taxes; however, compared to total sales taxes generated within the jurisdictions, the impact of these losses would be minor. The resulting impact would likely be less than 1% of the overall tax revenues shown in Exhibit 3.6-7: Local Option Sales Tax Revenues.

Furthermore, gas stations and food marts tend to be located close to other similar businesses. Displacing one gas station might shift the sales tax revenue to another gas station within the same jurisdiction, which would offset the impact to the sales tax base. Additionally, because the cities anticipate that S.R. 108 will become more of a commercial corridor, the amount of sales tax generated could increase due to new businesses, which would ultimately increase the sales tax revenue in the area.

4.6.3 West Alternative

The economic impacts from the West Alternative would be the same as those from the Minimize 4(f) Impacts Alternative.

4.6.3.1 Business Access and Relocation Impacts

Exhibit 4.6-4 below summarizes the business impacts from the West Alternative. This alternative would require the relocation of 12 businesses: American Family Insurance; Swan Falls, Ponds & Waterfalls; Phillips 66/Triple Stop; Triple Stop Auto Sales; Midland Gas and Groceries; the Professional Haven Office Building; Great Harvest; Weber State Credit Union; Summit One Credit Union/Packard Dental; Utah Onions, Inc.; AR Aluminum, Inc.; and a business that is not currently operating and is for sale. These relocations would result in the loss of about 182 to 337 employees along S.R. 108. These businesses could likely be relocated along S.R. 108 given the availability of commercial and vacant property and the conversion of residential properties to commercial use.



Exhibit 4.6-4: Business Relocations under the West Alternative

Business	Business Type	Address	Estimated Employees	Type of Impact
American Family Insurance	Insurance	1663 South 2000 West	1–19	Relocation
Swan Falls, Ponds & Waterfalls	Retail lawn and garden	2019 North 2000 West	3–8	Relocation
Phillips 66/Triple Stop	Gas station/food mart	3536 West 4800 South	10–15	Relocation
Triple Stop Auto Sales	Used auto sales	3536 West 4795 South	5–10	Relocation
Midland Gas and Groceries	Grocery store/gas	3805 S. Midland Drive	10–15	Relocation
Professional Haven Office Building	Professional offices	4645 S. Midland Drive	20–75	Relocation
Great Harvest	Bakery	2201–2173 North 2000 West	10–15	Relocation
Weber State Credit Union	Credit union	3500 West 6000 South	15–20	Relocation
Utah Onions, Inc.	Wholesale onions	850 South 2000 West	8–50 ^a	Relocation
Summit One Credit Union/Packard Dental	Credit union and dental office	4815 S. Midland Drive	Unknown	Relocation
Closed business/for sale	Unknown	1800 North 2003 West	NA	Relocation
AR Aluminum, Inc.	Manufacturing	3441 S. Midland Drive	100	Relocation

Sources: U.S. Census Bureau 2002b; U.S. Department of Agriculture 2002; HDR 2006c

^a Seasonal employees

Proximity impacts to some businesses along S.R. 108 would involve the acquisition of part of their lot, mainly lot frontage or parking areas. These businesses, which are shown in Exhibit 4.6-5, would not likely require relocation. However, the proposed right-of-way for S.R. 108 would be closer to each structure and could affect traffic circulation or parking in the lot.

Exhibit 4.6-5: Potential Business Relocations under the West Alternative

Business	Business Type	Address
Checker Auto Parts	Auto parts	1566 South 2000 West
Mark Higley Construction	Construction	1630 North 2017 West
Albertson's Express	Gas station	1829 North 2000 West
Blockbuster Video	Video rental	1867 North 2000 West
Patterson Excavation and Hauling	Construction	2300 North 2016 West
Weston's Glass and Hardware	Hardware retail	5975 South 3500 West
Wylde Hare Farms	Home business	3997 S. Midland Drive
Mountain States Telephone	Telephone infrastructure	~4100 S. Midland Drive
Midland Gas & Grocery	Gas station	3805 S. Midland Drive
Trace Minerals Research	Minerals testing and research	1996 S. Midland Drive

4.6.3.2 Property Tax Impacts

Exhibit 4.6-6 shows the impacts to property tax revenues as a result of acquiring private land under the West Alternative in Davis and Weber Counties and the affected municipalities. Overall, less than 1% of the property tax base of Davis and Weber Counties would be removed.

In the affected municipalities, the largest impacts as a percent of total property tax revenues occur in Syracuse and Clinton, where about 3.1% and 3.2%, respectively, of their respective tax bases would be affected. Overall, the impact to the property tax base of the counties and municipalities from the West Alternative would be small. The anticipated growth in the communities would likely overcome this impact with continued development, which would add additional revenues to the tax base and offset the loss of property taxes from the alternative.

Exhibit 4.6-6: Property Tax Impacts to Counties and Municipalities from the West Alternative

Area	Property Tax Impact	Property Tax Revenues (2004)	Percent of Total Tax Revenues
Davis County	\$73,559	\$23,824,600	0.3%
Syracuse	\$17,753	\$582,100	3.1%
West Point	\$9,734	\$1,006,700	1.0%
Clinton	\$28,482	\$904,000	3.2%
Weber County	\$130,151	\$28,303,700	0.5%
Roy	\$37,843	\$2,007,000	1.9%
West Haven ^a	—	—	—

Sources: Utah State Tax Commission 2006; Utah State Auditor's Office 2006

^a The Town of West Haven has no property tax levy and would be unaffected.

4.6.3.3 Sales Tax Impacts

The West Alternative would have a long-term positive impact on local option use taxes within the municipalities. Of the businesses that would be displaced by the West Alternative, six generate sales taxes: Swan Falls, Ponds & Waterfalls; Phillips 66/Triple Stop; Triple Stop Auto Sales; Midland Gas and Groceries; AR Aluminum, Inc.; and Great Harvest. The displacement of these businesses would result in the loss of retail sales taxes; however, compared to total



sales taxes generated within the jurisdictions, the impact of these losses would be minor. The resulting impact would likely be less than 1% of the overall tax revenues shown in Exhibit 3.6-7: Local Option Sales Tax Revenues. Additionally, because the cities anticipate that S.R. 108 will become more of a commercial corridor, the amount of sales tax generated could increase due to new businesses, which would ultimately increase the sales tax revenue in the area.

4.6.4 Mitigation Measures for Economic Impacts

Although the acquisition of commercial properties could cause an adverse impact on a given business, this impact would not necessarily cause an adverse impact to the area economy. Acquired businesses would be relocated by UDOT according to the Uniform Relocation Assistance Act, as amended; Title VI of the Civil Rights Act of 1964; and 49 CFR 24, Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs. If shoppers continue to want the services provided by a relocated business, the business should be successful at its new location, especially if it is reasonably close to the current location.

4.7 Joint Development Impacts

Section 3.7, Joint Development, describes opportunities for projects that might be developed jointly in the S.R. 108 study area. This section analyzes the proposed project's impacts on joint development.

4.7.1 No-Action Alternative

Because no major roadway improvements would be made to S.R. 108 under the No-Action Alternative, there would be no joint development opportunities.

4.7.2 Minimize 4(f) Impacts Alternative

Under the Minimize 4(f) Impacts Alternative, the pedestrian underpass would be constructed at about 1150 North in Clinton.

What is joint development?

Joint development is a term used by FHWA which, in this context, encompasses opportunities and expected impacts that are also addressed elsewhere in this EIS (for example, opportunities to construct pedestrian and bicycle trails).

UDOT would coordinate with the City of Clinton to include the underpass in the S.R. 108 improvements and construction schedule.

4.7.3 West Alternative

The joint development opportunities for the West Alternative would be the same as those for the Minimize 4(f) Impacts Alternative.

4.8 Impacts to Pedestrian and Bicycle Resources

This section addresses impacts to existing and proposed pedestrian and bicycle facilities in the pedestrian and bicyclist impact analysis area. This analysis was performed using information collected through interviews with city and county planning staff and reviews of local and regional land use master plans.

What is the pedestrian and bicyclist impact analysis area?

The pedestrian and bicyclist impact analysis area is the area within one-half mile of S.R. 108.

4.8.1 No-Action Alternative

Under the No-Action Alternative, no improvements to S.R. 108 would be made except for routine maintenance. There would be no impacts to existing facilities, and S.R. 108 would continue to lack continuous sidewalk facilities and bicycle routes.

4.8.2 Minimize 4(f) Impacts Alternative

The Minimize 4(f) Impacts Alternative includes 8-foot shoulders with a 4-foot Class II bicycle lane, 2.5-foot curb and gutter, and 4-foot sidewalks. These roadway improvements would increase pedestrian safety by providing continuous sidewalks. The roadway shoulder would provide a buffer between the travel lanes and pedestrians on the sidewalk. The proposed pedestrian and bicycle facilities on S.R. 108 would be consistent with local and regional plans, which recommend that sidewalks and bicycle accommodations should be provided on S.R. 108. The proposed improvements would be consistent with WFRC's recommendation for a bicycle facility on S.R. 108.

What are Class II and Class III bicycle facilities?

A *Class II bicycle facility* is a bicycle-only lane on each side of the road for one-way bicycle travel.

A *Class III bicycle facility* is a bicycle lane that is shared with vehicle or pedestrian traffic.



4.8.2.1 Impacts on Existing Pedestrian and Bicyclist Resources

Currently, there are no bicycle lanes on S.R. 108, and the existing sidewalks are not continuous. The proposed road improvements under the Minimize 4(f) Impacts Alternative would improve pedestrian and bicyclist resources.

The Minimize 4(f) Impacts Alternative would not affect use of the Clinton Creek Trail at 2050 North and S.R. 108 in Clinton. This alternative would not interfere with construction of the proposed pedestrian and bicycle underpass at this location.

4.8.2.2 Impacts on Future Pedestrian and Bicyclist Resources

West Haven is planning to develop the Power Line Corridor Trail along the power line corridor that runs parallel to S.R. 108 but is outside the impact analysis area. The trail will connect to the improved pedestrian and bicycle facilities on S.R. 108 at about 4500 South (see Exhibit 3.8-1: Proposed Facilities in the Pedestrian and Bicyclist Impact Analysis Area). Three other potential future facilities would connect to S.R. 108: two in Syracuse at about 1200 South and 1700 South and one in West Point at 200 South. These facilities would connect to the improved pedestrian and bicycle facilities on S.R. 108 and are planned within the S.R. 108 right-of-way. The Minimize 4(f) Impacts Alternative would not affect the use of these facilities.

4.8.3 West Alternative

The impacts from the West Alternative would be the same as those from the Minimize 4(f) Impacts Alternative.